

AYA LAKKIS

Software Engineering Student

+961 78 939 491 • ayalks@outlook.com • Lebanon

PROFESSIONAL SUMMARY

Software Engineering student at Antonine University (graduating 2027) with hands on experience building full stack web, mobile, and AI powered applications. Proficient in JavaScript, Python, Java, C#, C++, and a wide range of modern frameworks. Demonstrated ability to design and deploy production-quality systems including secure financial platforms, computer vision pipelines, and real time deep learning services. Eager to contribute to engineering teams that value clean architecture, continuous learning, and impactful software.

TECHNICAL SKILLS

Languages: JavaScript, Python, Java, C#, C++, HTML, CSS, SQL, PHP, Dart

Frameworks & Libraries: Laravel, React, Angular, Ionic, Flutter, Express.js, ASP.NET Core, WPF, Entity Framework Core, FastAPI

AI / ML / Deep Learning: PyTorch, TensorFlow Keras, Hugging Face Transformers, HuBERT, CNNs, RNNs, OpenCV JavaCV, Biometric Recognition, Minimax / Alpha Beta Pruning, NumPy

Databases: MySQL, PostgreSQL, MongoDB, SQLite, SQL Server, Firebase Firestore

Tools & Platforms: Git, GitHub, Google Colab, Firebase, REST APIs, RBAC, Payment Gateway Integration, Adobe Photoshop, Adobe Illustrator

PROFESSIONAL EXPERIENCE

Full Stack Intern | Talentech Company May 2025 to Aug 2025

- Developed a full stack mobile application using Ionic (front end) and Laravel (back end), collaborating with senior engineers on feature design and implementation.
- Improved application stability by debugging and optimizing existing codebases, ensuring adherence to code quality and project specifications.

Networking & QA Specialist | SpeedNet Tech Jan 2023 to March 2026

- Managed and maintained network infrastructure to guarantee consistent internet distribution quality for customers.
- Conducted rigorous QA checks on network services and hardware, diagnosing and resolving complex connectivity issues to improve overall service uptime.

ACADEMIC & PERSONAL PROJECTS

SmartRestaurant SER | Speech Emotion Recognition System | Python / PyTorch / HuBERT / FastAPI

- Fine tuned a HuBERT large transformer model on a combined 8882 clip dataset (RAVDESS + CREMA D) to classify customer speech into 5 emotional states | Neutral, Happy, Angry, Frustrated, and Confused.
- Achieved 83.6% validation accuracy and a weighted F1 score of 0.835; high distress states (Angry, Frustrated) trigger real time push alerts to a React staff dashboard via Redis PubSub.
- Built an end to end deployment pipeline: FastAPI REST inference service, WebRTC voice activity detection, ONNX FP16 runtime (<200ms latency on CPU).
- Technologies: Python, PyTorch, Hugging Face Transformers, torchaudio, FastAPI, Redis, React.

Book Reading Mobile App | Flutter / Firebase

- Built a cross platform mobile application for book reading using Flutter with Firebase Firestore as the real time backend database.
- Implemented user authentication, book library management, and reading progress tracking with a responsive, intuitive UI.

Full Stack Money Transfer Application | Laravel / MySQL

- Engineered a secure money transfer platform with User, Agent, and Admin roles using Role Based Access Control (RBAC).
- Designed a relational MySQL schema for ACID compliant transactions; built Laravel API endpoints for complex commission and service fee calculations.

AI Person Identification System | Java / JavaCV / OpenCV

- Built a biometric recognition pipeline in Java integrating face detection and LBPH face recognition to identify individuals against a secure database of known persons.

Plant Disease Detection | CNN | Python / TensorFlow / NumPy

- Trained a Convolutional Neural Network (CNN) using TensorFlow Keras to classify plant leaf diseases from images; leveraged NumPy for efficient high dimensional dataset preprocessing.

Full Point of Sale (POS) System | .NET / C# / SQL Server

- Created a comprehensive POS system in C# .NET with Cashier and Admin interfaces; used Entity Framework Core for real time inventory tracking, sales processing, and supplier management.

AI Chess Game | Python / Minimax Algorithm

- Developed an AI chess engine using the Minimax algorithm with Alpha Beta Pruning; implemented full game history tracking to enforce threefold repetition and 50 move draw rules.

EDUCATION

B.Sc. Software Engineering | Antonine University, Lebanon 2022 to Expected 2027

- Relevant coursework: Artificial Intelligence, Data Structures & Algorithms, Database Systems, Software Engineering Principles, Web Development, Mobile Development.

Full Stack Web Development Bootcamp | Coverse Technologies 2023 (3 months)

- Intensive bootcamp covering full stack web development with modern technologies; built dynamic applications end to end.

CERTIFICATIONS & TRAINING

- Artificial Intelligence From A to Z | Udemy Academy (15 hrs)
- Bug Hunter | Ridox Center (85 hrs)